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PATENT P56664

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

YOSHITAKA TERAO et al.

Serial No.:

10/045,017

Examiner:

MACCHIAROLO, PETER J.

Filed:

15 January 2002

Art Unit:

2879

For:

PLASMA DISPLAY PANEL HAVING SPECIFIC RIB CONFIGURATION

(as amended)

### REQUEST FOR REFUND

Mail Stop: 16
Attn: Refunds

Director of the U.S. Patent & Trademark Office 2051 Jamieson Ave, Suite 300 Alexandria, VA 22314

Sir:

Applicant respectfully request for refund of the total amount of \$500.00 (extra claim fee \$100.00 under fee code [1202] and \$400.00 under fee code [1201] overcharged on 11 February 2005) in the above-referenced application for the reason as follows:

- 1. On 15 January 2002, Applicant filed a patent application containing total 21 claims and 3 independent claims.
- 2. On 1 May 2002, an Official Filing Receipt was mailed. On the Official Filing Receipt, it stated that the filing fee \$888.00 (basic filing fee \$740.00 + extra claim fee \$18.00 + late surcharge \$130.00) has been paid, and the number of total claims "21" and the number of independent claims "3" have been indicated.

3. On 21 October 2004, the non-final Office action (Paper No. 1004) was mailed.

On 21 January 2005, Applicant timely filed an Amendment in reply to Paper 4. No.1004, and paid \$450.00 (check#48637) for extra claim fee. In the Amendment filed on 21 January 2005, Applicant has added new claims 22 and 23, and amended claims 4 and 21 to become independent claims. Claim 6 has been cancelled in a previous Amendment filed on 12 March 2004. Accordingly, claims 1-5 and 7-23 were pending in the Amendment filed on 21 January 2005, and the number of total claims was "22" and the number of independent claims was "5".

	Amendment filed on 21 January 2005	The highest number previously paid for
the number of total claims	22	21
the number of independent claims	5	3

\* Extra total claim fee:

22 - 21 = 1 extra x \$50.00 = \$50.00

\* Extra independent claim fee: 5 - 3 = 2 extra x \$200.00 = \$400.00

Extra claim fee incurred by Amendment filed on 21 January 2005: \$450.00

On 11 February 2005, the amount of \$100.00 under fee code [1202] and the amount 5. of \$400.00 under fee code [1201] were charged to the Applicant's undersigned Attorney's Deposit Account No. 02-4943.

#### **REMARKS**

In view of the fact that Applicant has paid extra claim fee of \$450.00 on 21 January 2005, the amount of \$100.00 under fee code [1202] and \$400.00 under fee code [1201] were overcharged on 11 February 2005.

Accordingly, the Commissioner is respectfully requested to immediately refund total amount of \$500.00 (extra claim fee \$100.00 under fee code [1202] and \$400.00 under fee code [1201] overcharged on 11 February 2005) to Applicant's undersigned attorney's Deposit Account No. 02-4943.

Please refer the attached documents for the above-reference patent application.

Respectfully submitted,

Robert E. Bushnel Attorney for Applicant

Reg. No.: 27,774

1522 "K" Street, N.W., Suite 300 Washington, D.C. 20005 (202) 408-9040

Folio: P56664

Date: 9 February 2007

I.D.: REB/sb

1. A copy of Amendment, Fee transmittal and check #48637 filed on 21 January Enclosures: 2005

2. A copy of date-stamped postcard receipt dated 21 January 2005

3. A copy of Official Filing Receipt dated 1 May 2002

4. A copy of Monthly Statement of Deposit Account dated 2/28/05



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Inder Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office Washington, DC 20231 www.uspto.gov

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To replenish your deposit account, detach and return top portion with your check. Make check payable to Director of Patents & Trademarks.

ROBERT E BUSHNELL ESQ ROBERT E. BUSHNELL 1522 "K" STREET, N.W. SUITE 300 WASHINGTON DC 20005

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P56664

21 January 2005

Applicant:

YOSHITAKA TERAO et al.

Serial No.:

10/045,017

Filed:

15 January 2002

For:

PLASMA DISPLAY PANEL HAVING SPECIFIC RIB

CONFIGURATION (as amended)

#### Document filed:

1. Amendment (responsive to Paper No. 1004 dated 21 October 2004)

2. Fee Transmittal and check #48637 for \$450.00 (extra claim fee)





FEB 0 9 2007

PTO/SB/17 (08-00)
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# **FEE TRANSMITTAL**

Patent fees are subject to annual revision.



Under the Peperwork

Complete If Known

Application Number 10/045,017

Filing Date 15 January 2002

First Named Inventor YOSHITAKA TERAO et al.

Examiner Name MACCHIAROLO, PETER J.

Group/Art Unit 2879

P56664 TOTAL AMOUNT OF PAYMENT Attorney Docket No. (\$) 450.00 FEE CALCULATION METHOD OF PAYMENT (check one) Fee Fee Fee 1. ■ Payment Enclosed: Paid Fee Description Code (\$) Code (\$) (CHECK #48637) ■ Check □ Credit Card □ Money Order MISCELLANEOUS Other Request for continued examination (RCE) 2801 \$395 1801 \$790 Submission of an IDS Charge Any Additional Fee Required Under 37 C.F.R. §1.16 and 1.17. 1806 \$180 1814 \$130 2814 \$65 Statutory disclaimer Recordation of assignment per property 8021 \$40 Applicant claims small entity status. See 37 CFR 1.27 TRADEMARK The Commissioner is hereby authorized to charge any deficiency and credit any over payments to: \$335 Application for registration, per class 6001/7001 \$ \$100 Amendment to Allege Use, per class 6002/7002 Deposit Account Number: 02-4943 Statement of Use, per class 6003/7003 \$100 FEE CALCULATION Request for six-month extension of time, per class \$ 6004/7004 \$150 Fee Fee Fee Paid Fee Description Code (\$) Code (\$) \$100 §8 affidavit, per class 6205/7205 \$200 §15 affidavit, per class 6208/7208 **EXTENSION OF TIME FEES** Application for renewal, per class \$400 6201/7201 Extension for reply within first month 2251 60 1251 120 Ex parte appeal, per class \$100 Extension for reply within second month \$ 6403/7403 2252 225 1252 450 PETITION Extension for-reply within third month 1253 1020 2253 510 Petitions to Director (Group I) \$400 1462 S 1254 1590 2254 795 Extension for reply within fourth month Petitions to Director (Group II) \$200 1463 1255 2160 2255 1080 Extension for reply within fifth month Petitions to Director (Group III) \$130 1464 APPEAL Petitions to revive unavoidably abandoned \$ 2452 \$250 1452 \$500 Notice of Appeal 2401 250 1401 500 application Petitions to revive unintentionally abandoned \$ 1453 \$1500 2453 \$750 Filing a brief in support of an appeal 2402 250 1402 500 application PATENT MAINTENANCE Request for oral hearing 1403 1000 2403 500 Due at 3.5 years 1551 \$900 2551 \$450 CLAIMS 2552 \$1150 Due at 7.5 years \$400.00 1552 \$2300 Independent claims in excess of 3 1201 200 2201 100  $(5 - 3 = 2 \text{ extra } \times \$200 = \$400)$ 1553 \$3800 2553 \$1900 Due at 11.5 years \$50.00 claims in excess of 20 2202 25 1202 50 (22 - 21 = 1 extra x \$50 = \$50) Other Fee (specify) Other Fee (specify)\_ Other Fee (specify) Other Fee (specify) \$ Other Fee (specify) Other Fee (specify) \$0.00 SUBTOTAL: RIGHT COLUMN SUBTOTAL: LEFT COLUMN \$450.00 Complete (if applicable) SUBMITTED BY Typed or Printed 27,774 Reg. Number Robert E. Bushnell, Esq. Name Deposit Account 21 January 2005 Date Signature User ID

ROBERT E. BUSHNELL LAW OFFICE

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15-7011/2540

1/21/2005

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MEMO

Serial No.10/045,017 extra claim fee (P56664)

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ROBERT E. BUSHNELL

48637





# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

YOSHITAKA TERAO et al.

Examiner:

MACCHIAROLO, PETER J.

Filed:

Serial No.:

15 January 2002

10/045,017

Art Unit:

2879

For:

PLASMA DISPLAY PANEL HAVING SPECIFIC RIB CONFIGURATION

(as amended)

# AMENDMENT UNDER 37 C.F.R. §1.111

Mail Stop: Amendment

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In response to the non-final Office action (Paper No. 1004) dated 21 October 2004, the applicant respectfully requests re-examination, reconsideration, and entry of the following remarks and amendments.

Please amend the above-identified application, as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 10 of this paper.

Folio: P56664 Date: 1/21/05 I.D.: REB/SS/sb

# AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

# **Listing of Claims:**

1	Claim 1. (Currently Amended) A plasma display, comprising:
2	first and second substrates opposing one another;
3	a plurality of first electrodes formed on a surface of the first substrate facing the second
4	substrate;
5	a first dielectric layer covering the first electrodes;
6	a plurality of main barrier ribs integrally formed on a surface of the second substrate facing
7	the first substrate, the main barrier ribs defining a plurality of discharge cells;
8	a plurality of electrode barrier ribs formed on the second substrate between the main barrier
9	ribs;
10	a second electrode and a second dielectric layer being formed on a distal end of each of the
11	electrode barrier ribs, with no materials for electrode or dielectric layers provided to innermost
12	portions between the barrier ribs of said main barrier ribs and said electrode barrier ribs;
13	phosphor layers formed within the discharge cells; and
14	discharge gas provided in the discharge cells.
	Claim 2. (Original) The plasma display of claim 1, with the second dielectric layer being

formed on the second electrode formed on the distal end of each of the electrode barrier ribs.

	Claim 3. (Original) The plasma display of claim 1, further comprising a third dielectric layer
2	being formed on a distal end of each of the main barrier ribs, and a height of an upper surface of the
3	third dielectric layer and a height of an upper surface of the second dielectric layer being
1	substantially the same.
1	Claim 4. (Currently Amended) A plasma display, comprising:
2	first and second substrates opposing one another;
3	a plurality of first electrodes formed on a surface of the first substrate facing the second
4	substrate;
5	a first dielectric layer covering the first electrodes;
6	a plurality of main barrier ribs integrally formed on a surface of the second substrate facing
7	the first substrate, the main barrier ribs defining a plurality of discharge cells;
8	a plurality of electrode barrier ribs formed on the second substrate between the main barrier
9	ribs;
10	a second electrode and a second dielectric layer being formed on a distal end of each of the
11	electrode barrier ribs;
12	phosphor layers formed within the discharge cells;
13	discharge gas provided in the discharge cells; and
14	The plasma display of claim 1, further comprising a third dielectric layer being formed on
	a dietal and of each of the main harrier ribs, and a height of an upper surface of the third dielectric

- layer being greater than a height of an upper surface of the second dielectric layer.
- Claim 5. (Original) The plasma display of claim 1, wherein one of the second electrodes is formed on a distal end of each of the main barrier ribs and the electrode barrier ribs.

#### Claim 6. (Canceled)

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- Claim 7. (Original) The plasma display of claim 1, wherein the electrode barrier ribs are formed integrally with the second substrate.
  - Claim 8. (Original) The plasma display of claim 1 wherein each discharge cell is divided into a plurality of partitioned discharge cells in which the same phosphor layer is formed.
    - Claim 9. (Original) The plasma display of claim 8, wherein each discharge cell is divided into two partitioned discharge cells.
    - Claim 10. (Currently Amended) The plasma display of claim 8, wherein the partitioned discharge cells defined by the main barrier ribs include concave surfaces, and a width of each of the partitioned discharge cells are formed to correspond to a color displayed by the particular partitioned discharge cell.

1	Claim 11. (Original) The plasma display of claim 10, wherein the partitioned discharge cells
	displaying blue include a larger width than the partitioned discharge cells displaying green, and the
2	partitioned discharge cells displaying green have a larger width than the partitioned discharge cells
	displaying red.
4 ·	displaying 100.
1	Claim 12. (Currently Amended) A method for manufacturing [[a]] the plasma display of
2	claim 1, comprising:
3	integrally forming [[a]] the plurality of main barrier ribs on the second substrate being a
4	plasma display substrate, the main barrier ribs defining [[a]] the plurality of discharge cells;
5	forming the electrode barrier ribs between the main barrier ribs;
6	forming [[an]] the second electrode on [[a]] the distal end of each of the electrode barrier.
7	ribs; and
8	forming [[a] the dielectric layer on each of the electrodes.
1 .	Claim 13. (Withdrawn) The method of claim 12, wherein the main barrier ribs and the
2	electrode barrier ribs are formed simultaneously.
1	Claim 14. (Withdrawn) The method of claim 12, wherein the main barrier ribs, the electrode

Claim 15. (Withdrawn) The method of claim 12, wherein the main barrier ribs, the electrode

barrier ribs, and the electrodes are formed simultaneously.

2	barrier ribs, the electrodes, and the dielectric layers are formed simultaneously.
1 2	Claim 16. (Withdrawn) The method of claim 12, with the main barrier ribs and electrode barrier ribs being formed by using the second electrodes as a mask.
1 2	Claim 17. (Withdrawn) The method of claim 12, with the second electrode forming before the main barrier ribs.
1 2 3	Claim 18. (Withdrawn) The method of claim 12, with the main barrier ribs being integrally formed to the second substrate before the formation of the second electrode and second dielectric layer.
1	Claim 19. (Currently Amended) A plasma display, comprising: a first substrate;
3	a second substrate opposing the first substrate;  a plurality of first electrodes formed on a surface of the first substrate facing the second
5	substrate;
6	a first dielectric layer covering the first electrodes;
7	a plurality of main lattice walls integrally formed on a surface of the second substrate facing
8	the first substrate, the main lattice walls defining a plurality of discharge cells;  a plurality of electrode lattice walls integrally formed on the second substrate between the

main lattice walls, each electrode lattice walls dividing each discharge cell formed between the main
lattice walls into a plurality of partitioned discharge cells, the partitioned discharge cells for each of
the discharged cells accommodating a phosphor layer of the same color;

a second electrode formed on a distal end of each of the electrode lattice walls; and a second dielectric layer formed on the second electrode formed on the distal end of each of the electrode lattice walls, with electrode and dielectric layers being formed on only the distal ends of the lattice walls.

Claim 20. (Original) The plasma display of claim 19, further comprising a third dielectric layer being formed on a distal end of each of the main lattice walls, and a height of an upper surface of the third dielectric layer and a height of an upper surface of the second dielectric layer being substantially the same.

- Claim 21. (Currently Amended) A plasma display, comprising:
- a first substrate:

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- a second substrate opposing the first substrate;
- a plurality of first electrodes formed on a surface of the first substrate facing the second

  substrate:
  - a first dielectric layer covering the first electrodes;
- a plurality of main lattice walls integrally formed on a surface of the second substrate facing
  the first substrate, the main lattice walls defining a plurality of discharge cells;

a plurality of electrode lattice walls integrally formed on the second substrate between the main lattice walls, each electrode lattice walls dividing each discharge cell formed between the main lattice walls into a plurality of partitioned discharge cells, the partitioned discharge cells for each of the discharged cells accommodating a phosphor layer of the same color;

a second electrode formed on a distal end of each of the electrode lattice walls; and
a second dielectric layer formed on the second electrode formed on the distal end of each of
the electrode lattice walls; and

The plasma display of claim 19, further comprising a third dielectric layer being formed on a distal end of each of the main lattice walls, and a height of an upper surface of the third dielectric layer being greater than a height of an upper surface of the second dielectric layer.

Claim 22. (New) The plasma display of claim 3, further comprised of said second electrodes formed on said electrode barrier ribs realizing an electrical connection with said first electrodes formed on said first substrate accommodating discharge in areas between said second electrodes and said first electrodes, and said second electrodes formed on said main barrier ribs used to accommodate the height of said third dielectric layers of said main barrier ribs being substantially the same as a height of said second dielectric layers of said electrode barrier ribs, said second electrodes of said main barrier ribs not being electrically connected and acting as floating electrodes, or grounded to not affect the discharge operation.

Claim 23. (New) The plasma display of claim 1, further comprised of the widths and heights

- of discharge cells being adjusted according to the color displayed, the widths and depths of the
- partitioned discharge cells are adjusted to control the areas of the phosphor layers to accommodate
- the brightness ratios of the light emitted from the discharge cells being made to conform to
- established brightness ratios without reducing the input signal levels.

#### **REMARKS**

Claims 1-5 and 7-23 are pending in this application. Claims 1, 4, 10, 12, 19 and 21 are amended in several particulars for purposes of clarity in accordance with current Office policy, to assist the examiner and to expedite compact prosecution of this application. Claims 22 and 23 have been newly added. The Applicant appreciates the Examiner's indication of allowability concerning claims 4 and 21.

## I. Claim Rejections - 35 USC § 103

According to MPEP 706.02(j), the following establishes a *prima facie* case of obviousness under 35 U.S.C. §103:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20

A. Claims 1-3, 5, 7-10, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over previously cited Komaki et al (USPN 6236160; "Komaki") in view of previously cited Kaake et al (USPN 6307318; "Kaake"). The Applicant respectfully traverses.

1. In regards to claims 1, the Examiner stated that Komaki discloses in figures 3 and 7, a first (1) and second (2) substrate opposing one another; a plurality of first electrodes (3b) formed on a surface of the first substrate facing the second substrate, and a first dielectric layer (5) covering the first electrodes, a plurality of main barrier ribs (12) integrally formed on a surface of the second substrate facing the first substrate which define a plurality of discharge cells (11); and Komaki further discloses a plurality of electrode barrier ribs (9) formed on the second substrate between the main barrier ribs into a plurality of partitioned discharge cells, the partitioned discharge cells for each of the discharged cells accommodating a phosphor layer (10) of the same color, and a discharge gas provided in the discharge cells. (Komaki, col. 6, line 46); Komaki is silent to a second electrode and a second dielectric layer being formed on a distal end of each of the electrode barrier ribs; however, Kaake teaches in figure 14 that a second electrode (92) and a second dielectric layer (94) may be formed on a distal end of the barrier ribs col. 2, ll. 47-50 and col. 3 ll. 60-61.

However, first, Komaki or Kaake (or even Hirao) when combined fail to teach or suggest there being no materials for electrode or dielectric layers provided to innermost portions between the barrier ribs of said main barrier ribs and said electrode barrier ribs. For example, Komaki includes an electrode protection layer or white dielectric layer 8 (col. 4, lines 36-39 of Komaki) between the ribs 9 and 12.

Moreover, since the Examiner modified Komaki with Kaaki, then the dielectric layer 44 and electrodes 42 would also be in between the ribs, since the Examiner needs the dielectric layer 94 and the metal layer 92 on the ribs. The technique used in Kaaki would then create the dielectric layer 44 and 42 in between the ribs and there is no teaching in Kaaki to avoid such. Therefore, Komaki, individually or when modified by Kaaki includes either a dielectric or dielectric and electrode between the ribs rather than just on top of the ribs. It is impermissible within the framework of 103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art. *In re Wesslau* 353 F.2d 238, 241, 147 USPQ 391, 393 (CCPA 1965); See also *In re Mercer*, 515 F.2d 1161, 1165-1166, 185 USPQ 774, 778 (CCPA 1975). Therefore, one cannot just say that only the dielectric layer or the electrodes from the ribs are to be used in the combination without taking into account the layers between the ribs in Kaaki.

The amendment to claim 1 is supported by the specification, for example in paragraph 15 and 87.

2. Regarding claims 2-3 and 20, the Examiner states that Komaki is silent to the exact height of the dielectric layers. However, the Examiner states that Kaake teaches in figure 14 that the second dielectric layer is formed on the second electrode, which is, formed the distal end of each of the barrier ribs. Kaake further teaches in figures 13-14, that a dielectric layer may be formed on every barrier rib using a method that will establish a height of an upper surface of the second dielectric layer and a third dielectric layer to be substantially the same, and this configuration improves large screen plasma displays by allowing for an easier manufacturing method. Kaake, col. 1, 11. 48-51. One would be motivated to make such a modification to Komaki's panel to allow for easier manufacturing. In paper no. 1004, the Examiner goes on to state in the response to the arguments, that Kaake's disclosed method of manufacturing the device will inevitably establish a height of an upper surface of the second dielectric layer (formed on the electrode barrier ribs 9) and a third dielectric layer (formed on the main barrier ribs 12) to be substantially the same; as taught by Kaake in column 4, lines 4-9, the method involves layering a common dielectric layer on the back glass substrate, then hot forming the gas discharge troughs and barrier ribs, thereby separating the common dielectric layer into different strips, which are subsequently layered on distal ends of the main barrier ribs and electrode barrier ribs; therefore, a height of the dielectric layers will be substantially the same since the dielectric layer is removed from a common layer at a substantially equal height. (emphasis added to comment).

Respectfully, the specification, nor the drawings of Kaake make such a teaching. The figure

alone cannot be used to show the height as specifically stated in the MPEP §2125 under the heading "DRAWINGS AS PRIOR ART" and under the subheading "PROPORTIONS OF FEATURES IN A DRAWING ARE NOT EVIDENCE OF ACTUAL PROPORTIONS WHEN DRAWINGS ARE NOT TO SCALE", the MPEP states "When the reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value. *In re Wright*, 569 F.2d 1124, 193 USPQ 332 (CCPA 1977).

Looking at the specification, there is also no such specific teaching concerning the height. The Examiner's explanation is more of an extrapolation rather than actual teaching as the Examiner is assuming certain facts and stating that it will inevitably be of such a height when no such teaching is actually made. As mentioned in MPEP 706.02(j), the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure as it here the case.

3. Regarding claims 8-10, the Examiner states that Komaki teaches in figures 2 and 7 that each discharge cell is divided into two partitioned discharge cells in which the same pho sphor layer is formed, and the partitioned discharge cells include concave surfaces (the phosphor surfaces shown in figure 2), and a width of each of the partitioned discharge cells are formed to correspond to a color displayed by the particular portioned discharge cell. (emphasis added for comparison).

However, to use the phosphor surface to teach the concave surface is improper. The claimed invention states that the partitioned discharge cells include the concave surfaces and it is not concerning the phosphor layer. Looking to Kamaki, it is clear that the concave portion is only from

the deposit of the phosphors but not from the discharge cells formed by the main barrier ribs as claimed. For clarification purposes, claim 10 was amended to include that the discharge cells are defined by the main barrier ribs which includes the concave surface and not the manner in which the phosphor is deposited within the cells as shown in Komaki.

4. Regarding claim 19, the combination of Komaki and Kaake and even if combined with Hirao, fails to teach or suggest electrode and dielectric layers being formed on only the distal ends of the lattice walls. Looking at Komaki, the electrodes are not formed on the distal ends of the lattice walls, but actually below and between the lattice walls, while the dielectric layer 8 is between the lattice walls. In Kaake, there are electrodes and dielectric layers 42 and 44 between the lattice walls.

The amendment to claim 1 is supported by the specification, for example in paragraph 15 and 87 and also the drawings of the present invention.

- B. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komaki in view of Kaake, in further view of previously cited Hirao et al (USPN 6424095; "Hirao"). The Applicant respectfully traverses.
- 1. In regards to claim 11, the Examiner stated that Hirao teaches that this configuration is known to produce proper brightness ratios. Hirao, col. 2, 11. 9-31. The Examiner further stated that

one would be motivated to make such a modification to improve the overall image quality.

However, the claim in addition to discussing the large blue discharge cell, also states that discharge cells displaying green have a larger width than the discharge cell displaying red. Hirao only mentions as seen in col. 2, that the blue phosphor is the widest and that the green and red are narrower than the blue, but fail to teach or suggest that the green is larger in width than the red.

Moreover, in col. 2, lines 31-35, Hirao also teaches how there are problems with having a larger blue cell as related to the starting voltage.

2. Concerning newly added claim 22, the references fail to teach or suggest said second electrodes formed on said electrode barrier ribs realizing an electrical connection with said first electrodes formed on said first substrate accommodating discharge in areas between said second electrodes and said first electrodes and said second electrodes of said main barrier ribs not being electrically connected and acting as floating electrodes, or grounded to not affect the discharge operation, because as seen in Komaki, there is a first rib and second ribs (studs), but neither is differentiated as one being electrically connected and the other not so that discharge is accommodated or not. Hirao and Kaake also fail to teach or suggest such an element as the ribs are all identical for Hirao and Kaake.

Moreover, the references fail to teach or suggest said second electrodes formed on said main barrier ribs used to accommodate the height of said third dielectric layers of said main barrier ribs being substantially the same as a height of said second dielectric layers of said electrode barrier ribs

because Komaki, Hirao and Kaake do not use the second electrodes in such a manner.

The Examiner cites figures 13 and 14 of Kaake as making such a teaching of substantially same height, but as mentioned above, in the MPEP §2125, the use of drawings in such a manner is improper.

Moreover, Kaake also does not teach that the second electrodes is used in such a manner where they are there for accommodating the height.

The newly added claim 22 is supported, for example, by paragraphs 63 and 67 of the present invention.

3. Concerning the newly added claim 23, the combined references fail to teach or suggest the widths and heights of discharge cells being adjusted according to the color displayed, the widths and depths of the partitioned discharge cells are adjusted to control the areas of the phosphor layers to accommodate the brightness ratios of the light emitted from the discharge cells being made to conform to established brightness ratios without reducing the input signal levels.

Claim 23 is supported by the eighth embodiment of the present invention as seen in for example paragraphs 206, 207.

# II. Withdrawn unelected claims 12 through 18

Claim 12 was amended to include the features of claim 1 and when claim 1 is allowed, then according to MPEP §821.04 in the *In re Ochiai* rejoinder, when there is even a proper restriction between product and process claims and when the product claims are elected, and the product claims are allowable, the process claims that include all the limitations of the allowable product claims would also be allowable.

## III. Allowable Subject Matter

Claims 4 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4 and 21 have been amended according to the suggestion of the Examiner and. therefore, claims 4 and 21 should be allowed.

In view of the foregoing amendments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. If there are any questions, the examiner is asked to contact the applicant's attorney.

PATENT P56664

A fee of \$450.00 is incurred by this Amendment for the addition of two (2) independent claims above three (3) and the addition of one (1) claim above twenty-one (21). Applicant's check drawn to the order of Commissioner accompanies this Amendment. Should there be a deficiency in payment, or should other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

Respectfully submitted,

Robert E. Bushnell Attorney for the Applicant Registration No.: 27,774

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Folio: P56664

Date: 21 January 2005

I.D.: REB/SS



# United States Patent

COMMISSIONER FOR PATENTS UNITED STATES PATENT AND TRADEMARK OFFICE Washington, D.C. 20231

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APPLICATION NUMBER

FILING DATE

GRP ART UNIT

FIL FEE REC'D ATTY.DOCKET.NO DRAWINGS

**TOT CLAIMS** 

IND CLAIMS

10/045.017

01/15/2002

2879

888

P56664

16

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Robert E. Bushnell Suite 300 1522 K Street, N.W. Washington, DC 20005



**CONFIRMATION NO. 7888** UPDATED FILING RECEIPT OC000000007989179\*

Date Mailed: 05/01/2002

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

#### Applicant(s)

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Domestic Priority data as claimed by applicant

**Foreign Applications** 

JAPAN 7754/2001 01/16/2001 JAPAN 7755/2001 01/16/2001

If Required, Foreign Filing License Granted 04/02/2002

Projected Publication Date: 08/08/2002

Non-Publication Request: No

Early Publication Request: No

Title

Plasma display and manufacturing method thereof

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

YOSHITAKA TERAO et al.

Serial No.:

10/045,017

Examiner:

MACCHIAROLO, PETER J.

Filed:

15 January 2002

Art Unit:

2879

For:

PLASMA DISPLAY PANEL HAVING SPECIFIC RIB CONFIGURATION

(as amended)

### AMENDMENT UNDER 37 C.F.R. §1.111

Mail Stop: Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In response to the non-final Office action (Paper No. 1004) dated 21 October 2004, the applicant respectfully requests re-examination, reconsideration, and entry of the following remarks and amendments.

Please amend the above-identified application, as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this

Remarks/Arguments begin on page 10 of this paper.

02/27/2007 SDENBOB1 00000038 10045017

01 FC:1201 02 FC:1202

400.00 GP 50.00 OP

Date: 1/21/05 I.D.: REB/SS/sb

Folio: P56664

01/25/2005 HMEKONEH 00000080 10045017

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